

CALIFORNIA STATE TEACHERS' RETIREMENT BOARD

INVESTMENT COMMITTEE

SUBJECT: Emerging Market Discussion

ITEM NUMBER: 7

ATTACHMENT(S): 3

ACTION:

DATE OF MEETING: May 7, 2003

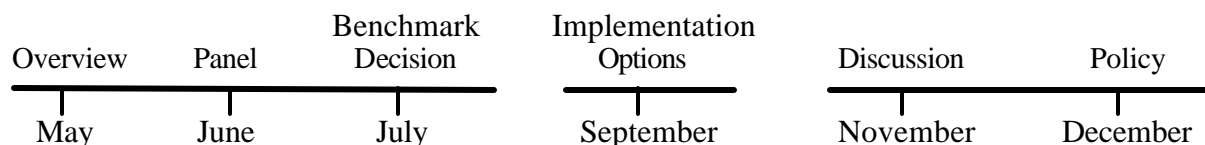
INFORMATION: X

PRESENTER(S): Elleen Okada
Allan Emkin, PCA

Policy:

The CalSTRS Investment Policies only reference to Non-US Emerging markets is within the Investment Policy and Management Plan. The asset class is established by the Board's adoption and use of the Morgan Stanley Capital Markets All-World Country Index excluding the U.S.A., or MSCI ACWI ex US benchmark on page 7 of the policy. This benchmark includes both developed and emerging countries around the world. The only other reference to emerging markets is on page 18, where the policy states that emerging markets are utilized to enhance return and diversification. Outside those two references the policies are silent on the implementation and objectives for this area.

The goal for this series of meetings will be to reconsider the benchmark and develop a more robust description of the structure and objectives for the CalSTRS Non-US equity investments within emerging countries. Staff has developed the following timeline to facilitate the major steps to discuss and review the policy. The first decision at the July meeting will be whether to keep the benchmark at ACWI or to shift to a benchmark that only allows developed countries. Upon that decision, the next step will be to discuss and develop objectives, portfolio structure, and implementation for the investment area.



Attachment 1 contains Pension Consulting Alliance's definition of emerging markets and includes a discussion of the issues related to emerging markets investments.

Attachment 2 presents CalSTRS' history of investing in emerging markets, and provides details of CalSTRS' current exposure to emerging market countries.

A description of MSCI's reclassification process plus a country status report are also included as Attachment 3.

Introduction to: Emerging International Markets

by

Pension Consulting Alliance, Inc.
April 21, 2003

EXECUTIVE SUMMARY

Emerging markets represent a small, but rapidly expanding segment of world equity markets. Despite disappointing returns from emerging markets during the latter half of the 1990s, we find that the underlying growth rationale for investing in these markets still holds. In fact, over the last three years, emerging markets have produced returns above those of some developed markets.

Many emerging market countries have undergone significant political, economic and social upheavals in the last decade, and appear more stable now. Many countries continue to improve the legal, governance and financial structures that underpin their stock markets. The very fact that these countries are going through significant evolution is a key defining characteristic of emerging markets that distinguishes them from developed markets.

Emerging markets have expanded significantly both by the number of countries and in the number of securities listed over the last decade. Transparency- the degree of visibility into these economies, their stock markets, and the individual securities - is increasing. The “contagion factor”, or spillover of one country’s crisis into other emerging markets in the region, appears to be receding. Lower contagion among emerging markets is due in part to the improved knowledge about the underlying economic fundamentals of individual countries and markets that has come with increased openness and transparency.

Individual emerging markets can be extremely volatile. However, taken together as a whole, the volatility in the returns from emerging markets look more like the volatility in returns of a developed market. The returns from emerging markets also exhibit low correlations with developed markets, and thus can meaningfully improve diversification in a portfolio.

Key implementation considerations in emerging markets include 1) making choices between allocating assets to emerging markets as a separate asset class or as a portion of a broader international allocation, 2) selecting active or passive managers, and 3) using dedicated emerging market specialists, or investment managers that are given extended mandates. Implementation issues are not discussed in this review.

WHAT IS AN EMERGING MARKET?

The term “emerging market” refers to a stock market that is developing, and growing in activity, size, or degree of sophistication. Emerging markets are typically defined by parameters that assess a stock market’s and/or an economy’s relative level of development.

Three organizations produce emerging market indices, including Standard & Poor, MSCI, and Barings. For illustrative purposes, we will refer to the MSCI Emerging Market Free (EMF) Index.

The MSCI EMF Index includes countries with some or all of the following criteria:

- Gross Domestic Product (GDP) per capita substantially below the average for developed countries. Gross Domestic Product measures the monetary value of the total goods and services produced by a country. To construct the ratio GDP/capita, GDP is divided by the total population of a country. GDP/Capita thus measures the level of wealth produced by a country relative to the number of people that wealth is supporting. Based on this ratio, MSCI designates a country as emerging if it’s GDP/capita falls below the average for developed countries, as measured by the World Bank;
- government regulations that limit or ban foreign ownership in industries and companies which are substantially greater than in developed markets;
- inadequate (either too lax or too zealous) regulatory environments and/or less sophisticated back office operations, including clearing and settlement capabilities;
- restrictions on the repatriation of initial capital, dividends, and/or capital gains;
- greater perceived investment risk than in developed markets; and
- a general perception by the investment community that the country should be considered emerging.

To construct the EMF Index, MSCI excludes those companies and share classes that are closed to foreigners to calculate the rate of return for stock markets in countries with restrictions on foreign investment.

WHICH MARKETS ARE EMERGING MARKETS TODAY?

Stock markets are emerging in Asia, Latin America, Europe, the Middle East and Africa. The specific list of markets designated as emerging varies among the organizations that have developed an emerging markets index. For illustrative purposes, we will use the MSCI Emerging Markets Free (EMF) Index. As shown in Figure 1 below, today, the MSCI EMF Index encompasses 26 countries.

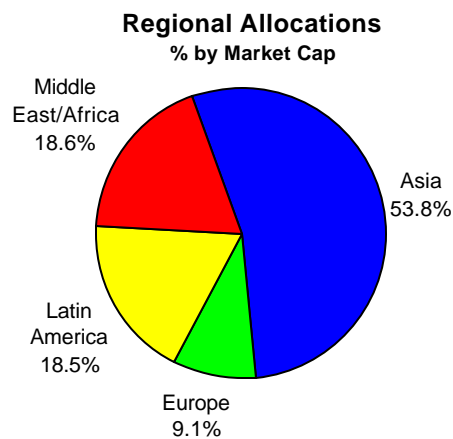
Figure 1: 26 Emerging Markets, MSCI EMF Index, as of March 2003.

Latin America	Asia	Europe	Middle East and Africa
Argentina	China	Czech Republic	Egypt
Brazil	India	Hungary	Israel
Chile	Indonesia	Poland	Jordon
Colombia	Korea	Russia	South Africa
Mexico	Malaysia	Turkey	
Peru	Philippines		
Venezuela	Taiwan		
	Thailand		

Source: MSCI

The EMF index includes countries for which the Gross Domestic Product per capita, taken alone, designates them as a developed market, such as Taiwan and Israel. These countries are included as emerging markets due to significant offsetting factors, such as government restrictions. (Both Greece and Portugal recently graduated out of Emerging Markets to Developed Markets, primarily because of a growth in Gross National Product.) As of March 31, 2003, the EMF Index represented 676 securities among ten industries, with a total market capitalization of over US\$490B. As shown in Figure 2 below, Asia dominates today's emerging markets, with 54% of the total market capitalization. Market capitalization is calculated by multiplying the total number of shares outstanding in a market by the current market price of each share.

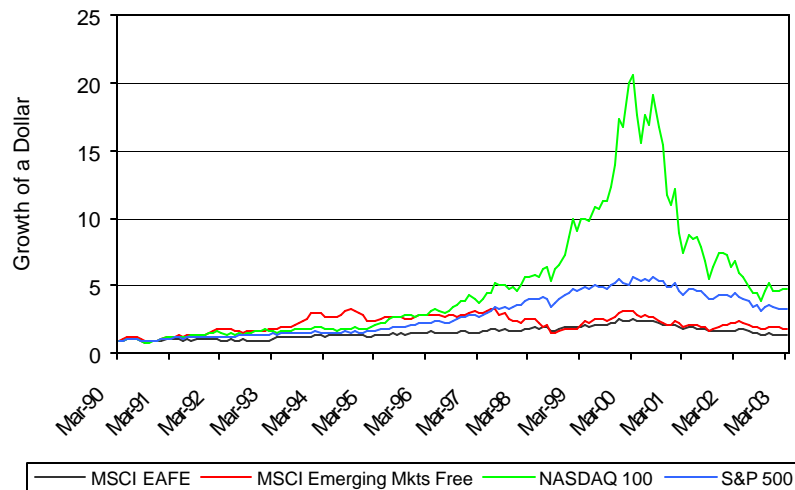
FIGURE 2: Emerging Markets – Regional Weights by Market Capitalization



HOW HAVE EMERGING MARKETS PERFORMED?

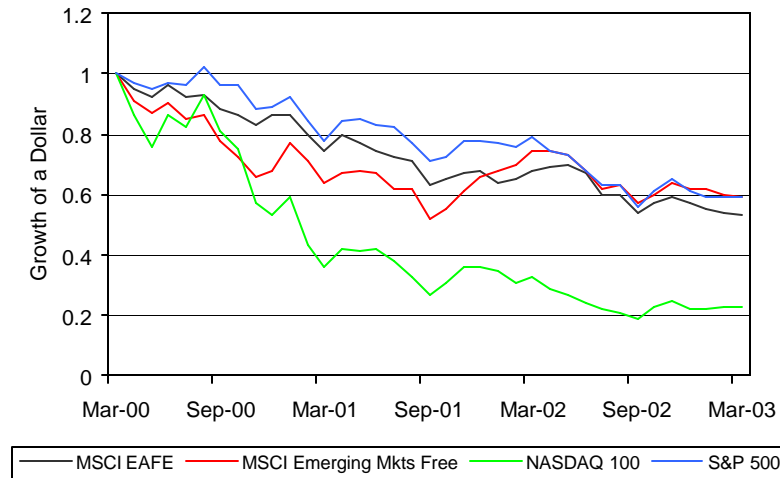
As shown in Figure 3 below, strong performance by emerging market equities in the early 1990's was fully retraced in the latter half of the 1990's. Consequently, the emerging market equity class has performed poorly over the last ten years.

FIGURE 3: Emerging vs. Developed Market Returns (%): Mar 1990-Mar 2003



A few institutions invested in emerging markets early on, although some did not begin investing in emerging markets until the early to mid- 1990s, and thus, on the whole, experienced more disappointing results than an investor who began in 1990 or before. During the past few years, many investors pulled back from their exposure to emerging markets. However, as shown below in Figure 4, over the past three years, the return from a dollar invested in emerging markets declined roughly on par with developed markets, and today the EMF Index is above the NASDAQ 100 and EAFE Indices, and equal to the S&P 500.

FIGURE 4: Emerging Market vs. Developed Market Returns: Mar 2000 – Mar 2003



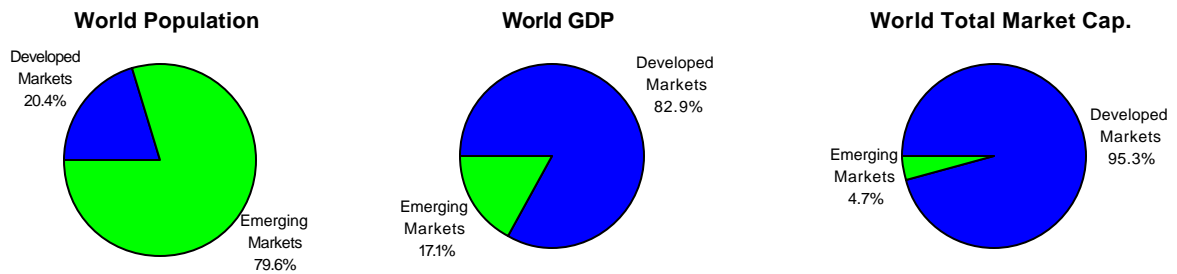
In the following sections, we look at the reasons to invest in emerging markets, the risks associated with these markets and key developments that have occurred over the past decade.

WHY INVEST IN EMERGING MARKETS?

Investors look to emerging markets primarily for their **potential** to yield superior returns as compared to developed markets. Diversification of a portfolio can be an added benefit.

In the late 1980s international investors first became attracted to emerging markets, based on the reasoning that these markets may potentially yield long term superior returns because the emerging market countries have the largest percentage of the world's population and abundant natural resources but relatively low Gross Domestic Product (GDP). As a result, there is the potential for high growth from a relatively low base. As shown in Figure 5 below, these core attributes still underpin the rationale for investing in emerging markets. Emerging markets represent approximately 79.6% of the world's population, but only 17.1% of world GDP, and 4.7% of total world market capitalization.

FIGURE 5: Emerging Markets Share of World Population, GDP and Market Cap



Source: S&P Emerging Stock Markets Factbook, 2002.

As shown below in Figure 6, the average Market Capitalization/Gross National Income for emerging markets still significantly lags that of the world market and lags key developed markets. The Gross National Income (GNI) of a country measures the total income produced by a country. GNI is often used as an alternative to Gross Domestic Product to measure the degree of economic wealth of a country. Thus, the measure of market capitalization relative to GNI, like that of market capitalization to GDP, is used as an indication of the degree to which a stock market of a given country has broadened relative to the wealth generated by that country.

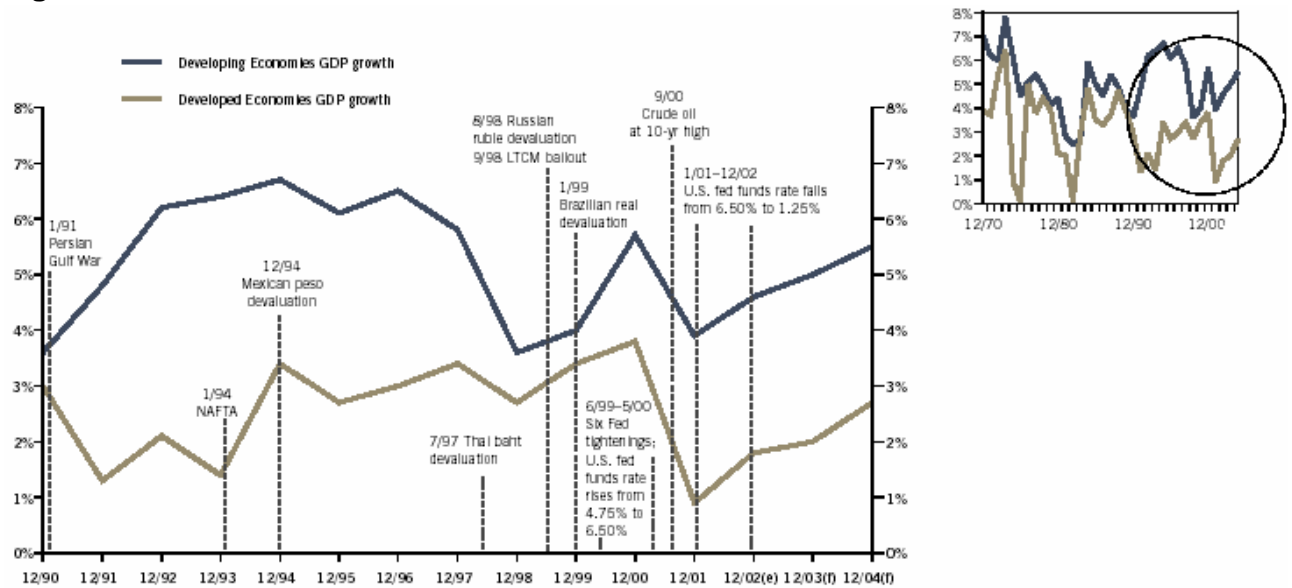
Figure 6: Emerging and Developed Markets Capitalization/Gross National Income Ratios, 2000

<u>Region</u>	<u>Avg. MC/GNI Ratio</u>
Emerging Markets	38%
World	89
US	144
Japan	50
UK	152

Source: PCA and S&P Emerging Stock Market Fact Book, 2002.

Over the last decade, emerging markets have consistently generated higher economic growth rates than developed markets, as illustrated below in Figure 7.

Figure 7: GDP Growth



Source: Capital International Group, Inc. 2003.

Emerging markets are expected to continue to produce higher rates of economic growth and of population growth than developed markets (Figures 8a and 8b below).

Figure 8a: Real GDP Growth (% Change Year over Year)

	1997	1998	1999	2000	2001	2002E
G-7 countries	2.9	2.1	2.7	3.8	1.0	1.8
Emerging Markets	6.1	1.6	3.5	5.5	2.6	4.3

Source: Citigroup Asset Management Research, 2002.

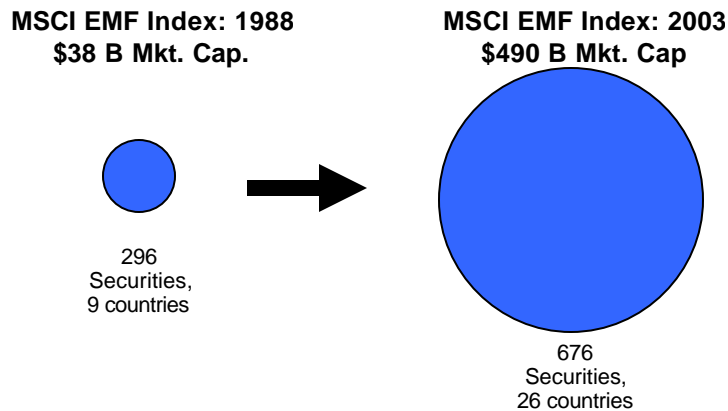
Figure 8b: Annual Population Growth (%)

	2000	2005E	2010E	2020E
G-7 Countries	0.3	0.3	0.2	0.2
Emerging Markets	1.6	1.4	1.3	1.2

Source: U.S. Census Bureau.

Over the last decade, the emerging markets universe has expanded dramatically. As shown in Figure 9 below, the first MSCI EMF index, released in 1988 included only nine countries, 296 stocks with a total market capitalization of \$38 billion. Today, the number of countries included in the EMF Index is nearly triple the original 9, while the number of securities included in the EMF Index has more than doubled from the inception of the index.

Figure 9: Expansion of Emerging Markets



Source: MSCI.

The expansion and liberalization of emerging markets, combined with outsourcing of manufacturing and production from developed markets to emerging markets have stimulated the transfer of technology and the deployment of capital across many emerging markets, and spawned rapidly growing companies and industries that were not listed in the early 1990's when investors made initial forays into emerging markets. For example, information technology, health care, and telecommunications today represent 36.7 percent of the MSCI EMF INDEX, and were virtually unrepresented in 1988.

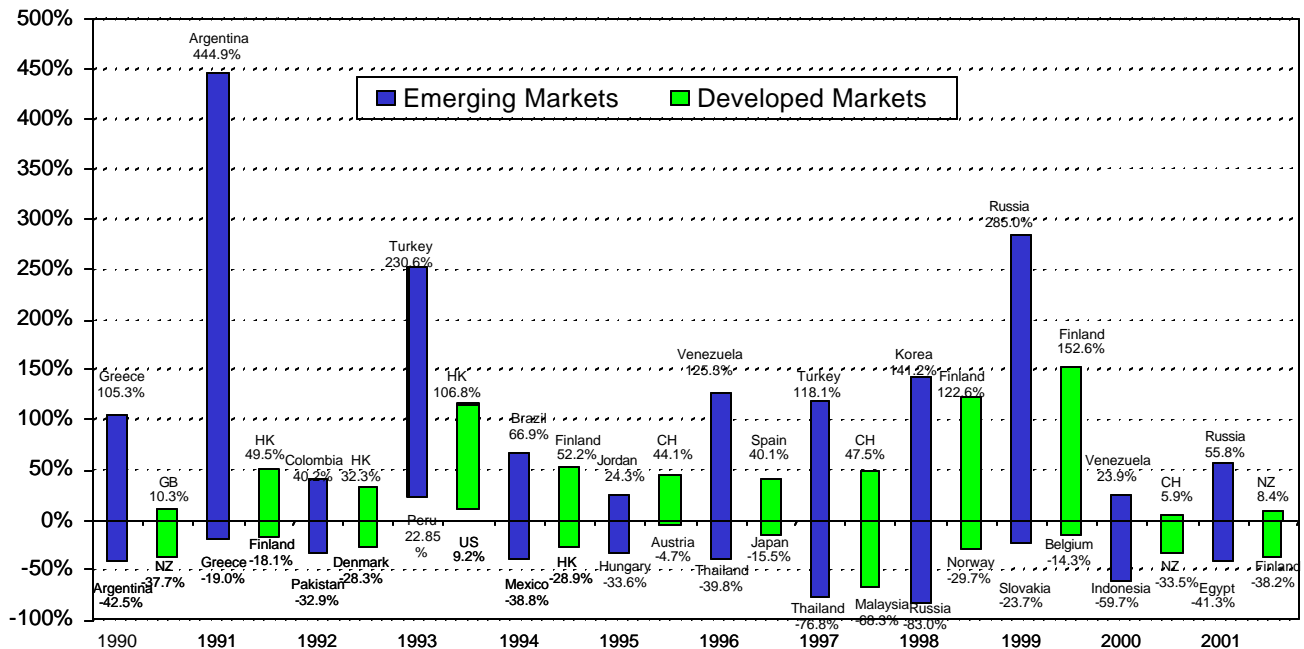
Emerging markets are expected to continue to expand. Above we have concentrated on the MSCI EMF index as an example. Until last year, MSCI also tracked an EM Index, which was a broader universe of emerging markets that included those stocks and local markets not open to foreigners. MSCI no longer tracks this broader measure of emerging markets. However, the S&P/International Finance Corp. produces both an emerging markets free index, similar to the MSCI EMF Index, and a broader emerging markets index. IFC also tracks "frontier markets", which over time may graduate to be defined as emerging markets. Today, S&P/IFC's free index includes 26 countries, which is similar to MSCI's EMF Index. However, IFC's broader Emerging Markets Index includes 33 countries. IFC characterizes an additional 20 markets as frontier markets today. This data suggests that emerging markets will continue to expand, and more countries will be added, both from greater openness to foreigners, and through the growth and improvement of today's nascent frontier markets.

THE RISKS OF INVESTING IN EMERGING MARKETS

Because these markets are just emerging, and the countries are still developing, these markets are relatively inefficient. Thus, they can be actively mined for superior returns relative to the emerging market Indices. However, many of the characteristics that make these markets inefficient also represent much broader risks than investors typically face in developed markets.

As shown in Figure 10 below, over the past decade, the risks inherent in emerging markets resulted in both a significantly wider spread of returns among emerging markets than among developed markets, and much greater volatility in the returns from individual emerging markets.

Figure 10: Best vs. Worst Returns in Emerging and Developed Markets



Source: *Rexiter Capital, MSCI and IFC via FactSet.*

As shown above, the spread between the best and worst returns in emerging markets has typically been much wider than among developed markets. Moreover, the returns generated by individual countries have swung dramatically within brief periods, producing highly volatile markets. Extreme examples are evident in Figure 10 above. In 1990, Greece was the best emerging market performer, producing 105% returns. The next year Greece plummeted to the lowest echelon of emerging markets performance, with a -19% return. Conversely, in 1990, Argentina posted -42.5%, which was the lowest return among emerging markets. Yet in 1991, Argentina yielded a 449% return, which was the highest return achieved by any emerging market that year. Similarly, in 1998, Russia's -83% rate of return was the worst return generated among all emerging markets. The following year, Russia led emerging markets with a 285% return.

The volatility of emerging market returns reflects the generally higher risks associated with investing in emerging markets than in developed markets. Emerging market risks include political risk, structural risk, and currency risk. The combined risk characteristics of a market can be estimated statistically, by, for example, return volatility to allow for direct comparisons to other asset classes.

Political risk is a central area of concern in emerging markets. The political environment within a country permeates all other activities, especially economic enterprise. Political risk encompasses a broad spectrum of issues, including political instability, asset confiscation, unexpected policy changes, and foreign ownership restrictions. Because many emerging market countries are experimenting with new forms of government and policies, these issues can impact emerging market investors more forcefully than is typically experienced in developed markets.

Investors can apply a standard approach to rank countries across a number of these political factors to judge the relative stability of specific regimes. A standard approach can also provide a consistent framework to compare political risk among countries and to identify evolving political trends.

Countries that are included in emerging market indexes normally meet an acceptable minimum level of political risk. Countries outside an index often carry additional political or structural risk. Therefore, to the extent to which a portfolio invests in countries beyond the emerging market indices, it is likely that the political risk factor will be higher.

Structural Risk gauges the quality of market structures and attempts to measure the ease with which foreign investors can enter and exit specific foreign markets. The structure of a market is defined by numerous factors including the size, breadth and liquidity of a market, the level of regulation and sophistication underlying the market, and market-specific costs. All of these factors can affect the level of structural risk of a given market. Countries with financial markets that operate under low structural standards often restrict the control foreign investors can exercise over the various functions required to invest. These situations may at times jeopardize the potential for return from a specific market.

Currency Risk identifies the magnitude of risk associated with a market due to currency fluctuations. Currency risk is typically much higher in emerging markets than in developed markets for two central reasons. First, forward exchange markets in emerging market currencies do not exist, so it is difficult to hedge away currency risk in emerging market portfolios. As a result, the return volatility associated with currency risk is an inseparable part of the overall returns of an emerging market. Second, high levels of inflation in a number of emerging markets have exacerbated their currency volatility. In those circumstances where significant currency depreciation has occurred, the primary cause was the inability to control inflation. If a country can improve its control of inflation and the economic fundamentals underlying excessive inflation, it should be able to mitigate a substantial amount of currency risk.

EMERGING MARKETS HAVE UNDERGONE MANY REFORMS IN A DECADE

Since the early 1990's many emerging markets have undertaken significant reforms on all fronts – economic, political and social. Examples range widely from the democratization of Brazil and Mexico, to the movement toward a market economy within many countries in the former Eastern Block (Czech Republic, Hungary and Poland), and the inflation-stabilization programs recently adopted in Latin American countries including Argentina, Brazil, Peru, and, to some extent, Mexico.

During the past decade, many emerging market countries began implementing market-oriented reforms that both increase the degree of openness and transparency of these markets, and improve the way they are regulated. These developments over time help reduce the level of risk in emerging markets. Reforms have occurred in areas such as privatization, trade, labor reform, open disclosure policies, and pension industry organization that stimulate these markets and increase transparency. Figure 11 below highlights some recent advances.

Figure 11: Market oriented reforms are spreading throughout emerging markets

China <ul style="list-style-type: none"> ■ Incipient steps in privatization: sale of minority stakes in leading industries. ■ Sharp decrease in import tariffs, but many strong non-tariff barriers remain. Accession to WTO bodes well for further gradual opening. ■ Government's key challenge: how to transition from state-guaranteed employment to private industry. This also entails funding very large pension liabilities. 	Korea <ul style="list-style-type: none"> ■ Significant sell-down of government ownership in most industries. ■ Import tariffs have been greatly reduced. Few protected industries subject to quotas. ■ Recently introduced legislation makes hiring and firing much easier than before. ■ No significant changes in pension regulations.
India <ul style="list-style-type: none"> ■ Very limited success in privatizations in last 10 years. ■ Strong reduction in import tariffs, though they remain very high. Licensing requirements have diminished somewhat but still remain onerous; limitations on foreign ownership remain in some sectors. ■ Rigid labor laws have changed very little in past 10 years. ■ No major initiatives in pension area. 	Taiwan <ul style="list-style-type: none"> ■ Very limited attempts at privatization. ■ Low import tariffs but limitations remain on foreign portfolio investments. ■ Flexible labor laws.
Brazil <ul style="list-style-type: none"> ■ Strong privatization during last decade; few industries remain under government control. ■ Significant decrease in import tariffs. Very few restrictions remaining on foreign investment. ■ Labor markets remain fairly flexible, but there has been no major reform during the last decade. ■ Some improvement in curtailing excessive pension benefits of government employees, but no significant changes in other areas. 	Russia <ul style="list-style-type: none"> ■ Widespread privatization process in mid-1990s. Government still retains substantial ownership in many companies. ■ Nominal import tariffs have decreased significantly. However, non-tariff barriers effectively hinder foreign participation in many areas. ■ Labor laws remain very rigid. ■ Incipient attempts to modernize pension system.
Mexico <ul style="list-style-type: none"> ■ Strong privatization during last decade; few industries remain under government control. ■ Dramatic reduction in trade barriers (zero within NAFTA, small with other countries). Very few restrictions remaining on foreign investment. ■ Labor laws remain quite rigid; very few changes in past few years. ■ Positive legal changes stimulating creation of company-backed pension plans (AFORES). 	South Africa <ul style="list-style-type: none"> ■ Beginning efforts in privatization during past decade. ■ Import tariffs and licensing requirements have been reduced significantly. Few limitations on foreign participation. ■ Little change in rigid labor laws. ■ No change in pension regulations.

Source: Capital Group International, Inc. April 2003.

The last decade has also witnessed transitions to floating exchange rates from fixed currency regimes across much of Asia and parts of Latin America, as shown in Figure 12 below.

Figure 12: Currency regimes are liberalizing

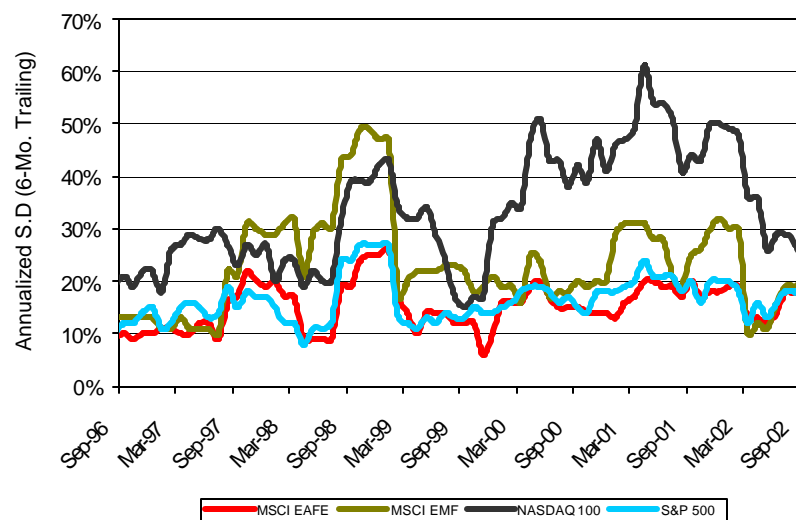
Country	Mid 1994	March 2003	Change due to FX crisis	Comment
Argentina	Fixed peg to US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Brazil	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Chile	Managed FX band	Free Float	No	
China	Quasi Fixed peg to US\$	Fixed peg to US\$	na	Given capital controls, today's status quo can last a long time.
Colombia	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Ecuador	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
India	Quasi Fixed peg to US\$	Quasi Free Float?	na	
Indonesia	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Korea	Managed FX band/level vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Malaysia	Managed FX band/level vs. US\$	Fixed peg to US\$	Yes	Pressure to adjust the FX is rising again.
Mexico	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Peru	Free Float	Free Float	na	
Poland	Managed FX band vs. basket	Free Float	No	System starting to show stress?
Russia	Managed FX band vs. US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
South Africa	Dual FX system	Free Float	No	Cheap but structurally weak.
Thailand	Quasi fixed peg to US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Turkey	Managed FX band vs. basket	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.
Venezuela	Quasi fixed peg to US\$	Free Float	Yes	FX eventually fell victim to sharply deteriorating fundamentals.

Source: Capital Group International, Inc. April 2003.

WHY INVEST IN EMERGING MARKETS NOW?

The many reforms among emerging markets over the last decade may have helped lower some of the high risk associated with investing in these markets. As shown in Figure 13 below, the volatility of emerging market returns peaked in late-1998 above the volatility of returns from developed markets. Since 1999, the degree of volatility in the returns generated by emerging markets has remained relatively comparable to the volatility levels of developed markets.

Figure 13: Relative Volatility of Emerging Markets.



Source: ITI, PCA.

Widespread reforms, including better transparency appear to have also spurred a decline in the severe degree of 'contagion' among emerging markets, such that crisis in one market would trigger capital market crises across an entire region. There is some evidence that contagion is dropping in emerging markets, as shown below in Figure 14.

Figure 14: Emerging Markets Experiencing Lower Contagion of Crisis

Major Crisis	Period of Crisis	Country Return (%) (A)	MSCI EMF (%) Index Return (B)	Contagion Factor (C=B/A)
Mexico	Dec-94-Mar-95	-59.9	-19.4	0.32
Thailand	Jul-97 to Dec-97	-63.4	-26.0	0.41
Russia	Apr-98 to Sep-98	-88.1	-39.8	0.45
Brazil	Nov-98 to Jan-99	-40.8	-3.0	0.07
Turkey	Nov-00 to Feb-01	-52.8	-3.9	0.07
Argentina	Apr-01 to Dec-01	-24.4	3.2	-0.13

Source: MSCI, Citigroup Asset Management, 2002.

Over time, investors have become better equipped to assess the relative value of each market based on its own merits and fundamentals as more open disclosure policies have been adopted. As differences in each country's underlying fundamentals become clearer, it is expected that the impact of a negative event in one country will have a more limited impact on other emerging economies.

Given the below-par return performance experienced by emerging markets, investors who allocated assets to the emerging markets equity class have questioned their exposure over the last five years. However, despite the many financial crises experienced by emerging market economies over the last decade, today, many emerging markets appear more stable.

In addition to the potential for superior return performance from emerging markets going forward, emerging markets typically post a relatively low correlation with developed markets (Figure 15 below).

Figure 15: Emerging Market Low Correlation to Other Equity Asset Classes

INDEX	MSCI-EMF	MSCI-ACWIF	MSCI – EAFE	Nikkei 225	S&P 500	Russell 3000
MSCI-EMF	1.00					
MSCI-ACWIF	0.64	1.00				
MSCI-EAFE	0.60	0.88	1.00			
Nikkei 225	0.39	0.75	0.71	1.00		
S&P 500	0.56	0.82	0.66	0.39	1.00	
Russell 3000	0.59	0.78	0.66	0.39	0.99	1.00

Source: Citigroup, and MSCI, Bloomberg, Rimes. Correlation based on monthly returns for period Dec. 1987 to Dec. 2001. Morgan Stanley Capital International Indices are: -EMF-Emerging Markets Free, ACWIF- All Country World Index Free, EAFE – Europe, Australia, Far East Index.

This low correlation enhances the ability of emerging markets to provide diversification benefits to a portfolio focused on developed markets.

CONCLUSION

In summary, we find that the underlying rationale for investing in emerging markets still holds despite the sub-par returns generated by these markets during the latter half of the 1990's when many emerging market countries experienced economic, political, and social upheavals.

The legal, governance and financial structures within emerging markets continue to improve. Emerging markets have expanded significantly to include many more countries and securities. Transparency is increasing, and contagion among emerging markets appears to be receding.

The potential for superior returns from investing in emerging markets relative to developed markets, is matched by the higher potential risks inherent in emerging markets. However, while individual emerging markets are extremely volatile, the volatility of returns for the total EMF index looks much like the volatility of returns in a developed market.

Emerging markets also exhibit low correlations with developed markets, and thus can provide meaningful diversification to a portfolio.

BACKGROUND

In 1993, staff and Pension Consulting Alliance conducted a comprehensive study to determine the appropriateness of allowing non-US equity managers to invest a portion of the assets of the Teachers' Retirement Fund in emerging markets. It was concluded that the primary reason for utilizing emerging markets is the prospect of realizing a higher total rate of return than is available in the other international investment categories. The recommendation was that CalSTRS should increase the mandate of international managers to allow the purchase of emerging market equity securities, while the EAFE performance benchmark would remain unchanged.

In November 1993 the Investment Committee approved the concept of expanding the investment mandate of existing non-U.S. equity managers to include the purchase of securities in countries in the MSCI Emerging Market Index. The Committee adopted a strategic target of 10% of non-U.S. equities, or 20% of total market value for each international and global manager in emerging market securities.

The program was implemented in February/March of 1994 to allow existing active international, regional, and global managers to invest in emerging market countries in the MSCI Emerging Market Index. The premise was that these managers would invest in these emerging markets on an "opportunistic" basis. This mandate would allow the manager to invest in emerging markets only when market valuations indicated that emerging markets could add value over their MSCI benchmark (World, EAFE, Pacific Basin, or Europe).

By June 1995 the active managers' exposure to emerging markets was \$329 million (or 8.2% of the managers' assets), 4.7% of international assets, and 0.5% of total assets. Because these allocations fell well short of the target allocation of 10% for emerging markets, staff received approval from the Investment Committee to increase the exposure to emerging markets through passive management.

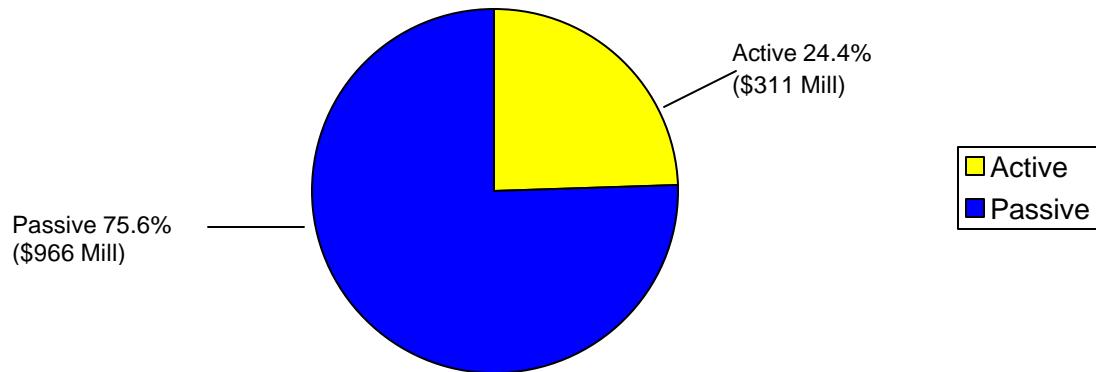
A Request For Proposal (RFP) was developed, disseminated, and evaluated. State Street Global Advisors (SSgA) was hired and funded in June 1996. The passive mandate was to utilize a liquidity based equal weighted strategy based on the countries contained in the MSCI emerging markets index. SSgA implements this passive strategy by annually evaluating each of the countries in the emerging markets index to establish liquidity tiers. This multi-step analysis evaluates and rates each country on a variety of factors including local trading volume, available capitalization (float adjusted), index concentration, settlement issues, and entry/exit considerations. The portfolio generally consists of countries that score in the top three liquidity tiers.

CALSTRS' EXPOSURE

As of February 28, 2003, the market value of CalSTRS' non-US public equity portfolio is approximately \$17.2 billion, 7.6% (\$1.3 billion) of which is invested in emerging markets

countries. As shown below, the vast majority of these holdings (75.6%) are held in the passively managed portfolio, vs. the remaining 24.4% which is held by the active managers.

Emerging Markets Exposure Active vs. Passive Weights

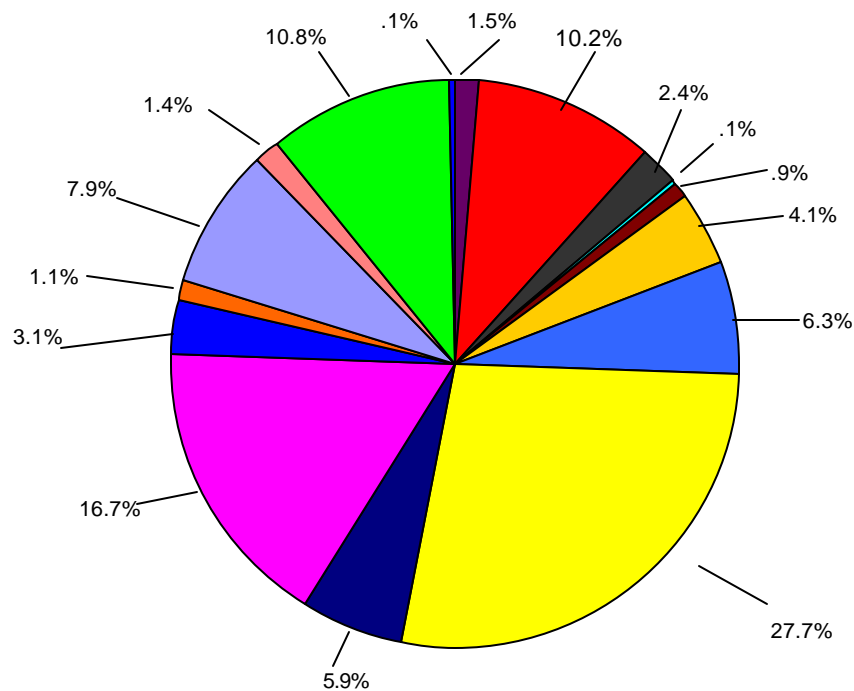


The chart below provides a snapshot of both the active and passive managers' exposure to emerging markets as of February 28, 2003. It is important to note that the active managers invest opportunistically, so this exposure may change at any point in time. As shown below, the amount of emerging markets exposure ranges from a high of 17.4% for Newport Pacific, to a low of 0% for Fidelity.

	% of Port. in Emg. Mkts.	Argentina	Brazil	China Free	Hungary	India	Indonesia	Israel	Korea	Malaysia	Mexico	Philippines	Russia	S. Africa	Taiwan	Thailand	Turkey
Active:																	
Capital Guardian	5.3		X						X		X		X		X		
Lazard Freres	5.5		X			X			X		X		X				
Morgan Stanley	0.4								X								
Oechsle	0.1							X									
Schroder	1.9								X						X		
Bank of Ireland	3.1			X					X								
BatteryMarch	2.1		X	X					X					X	X		
Fiduciary Trust	8.2			X					X		X		X	X			
Delaware	4.1								X					X			
Nicholas Applegate	9.9		X	X	X	X		X	X		X				X		
UBS	3.1		X						X		X				X		
Marvin & Palmer	10.6			X				X	X					X		X	
Newport Pacific	17.4			X		X			X	X					X	X	
Blackrock	9.1						X		X							X	
Fidelity	0																
Goldman Sachs	4.1								X		X		X				
Passive																	
SSqA		X	X				X	X	X	X	X	X		X	X	X	X

The chart below shows the percent of CalSTRS' exposure to each of the emerging markets countries in which CalSTRS is invested as of February 28, 2003. The highest exposure is to Korea at 27.7%. This is not surprising, considering that of the 17 managers listed above, all but 2 have investments in Korea. The next highest exposures in descending order: Mexico 16.7%, Thailand 10.8%, Brazil 10.2%, South Africa 7.9%, Israel 6.3%, Malaysia 5.9%, Indonesia 4.1%, Philippines 3.1%, China Free 2.4%, Argentina 1.5%, Taiwan 1.4%, Russia 1.1%, India .9%, and Turkey .1%.

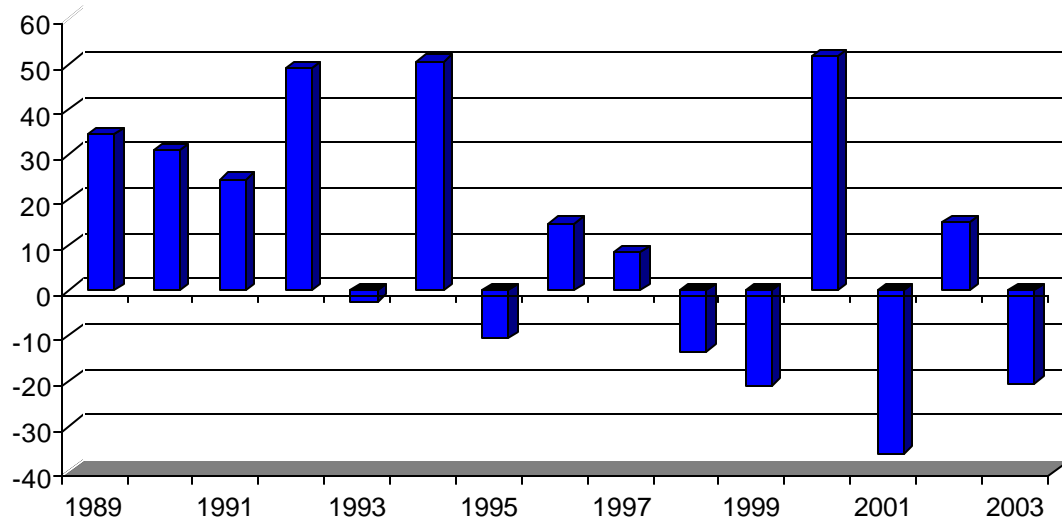
**% Invested in Emerging Markets
as of February 28, 2003**



Argentina	Brazil	China Free	Hungary	India	Indonesia
Israel	Korea	Malaysia	Mexico	Philippines	Russia
S. Africa	Taiwan	Thailand	Turkey		

EMERGING MARKETS PERFORMANCE

**MSCI Emerging Markets Free Index
Annual Returns for Years Ending 03/31**



DESCRIPTION OF MSCI'S PROCESS FOR RECLASSIFYING A COUNTRY AS A DEVELOPED MARKET IN THE MSCI EQUITY INDICES

MSCI follows a standard process, considering many factors, to determine whether a country should be reclassified as a Developed Market in the MSCI Equity Indices. The process has four stages: 1) ongoing monitoring of markets globally, 2) a more intensive internal review, 3) public announcement of a formal review and a worldwide investor consultation and 4) final determination by MSCI.

MSCI monitors the evolution of markets and country characteristics on an ongoing basis in the ordinary course of its research process. In determining whether a country should be classified as a Developed Market in the MSCI Equity Indices, MSCI focuses on factors that would indicate sustainable and lasting development of the country's equity market and economy and on factors that tend to make such development irreversible.

There is no fixed schedule for reviewing the possible suitability of a country index for inclusion in the Developed Markets Equity Index Series, and generally, no single event, development or indicator automatically triggers a more intensive internal review. A more focused internal review can be prompted by the presence of a number of sustainable development factors, including, most commonly, an increase in the World Bank's measurement of the country's Gross National Income ("GNI") per capita to a level above the threshold used by the World Bank to categorize "high income" countries.

If one or more of these significant development factors is perceived as sustainable and lasting, MSCI typically begins a period of more intensive research and analysis to determine whether the country in question is a good candidate for a change in classification. The analysis is based on a variety of quantitative and qualitative factors, relating to, among other things, economic development and market depth, breadth, operational efficiency and the market's accessibility to international investors. Consistent with MSCI's announcement policy regarding nondisclosure of the existence or status of internal reviews generally, MSCI does not disclose the existence or status of a more intensive internal review of a country's potential reclassification.

If, based on its intensive internal review and analysis, MSCI decides that a formal review of a country's status is warranted, MSCI communicates that decision through a public announcement. MSCI then organizes a consultation with institutional investors worldwide to solicit views based on each institutional investor's specific experience and market knowledge regarding where the country stands with respect to the relevant factors. If after the consultation MSCI concludes that a change in status is appropriate, MSCI publicly announces such a change well in advance of its actual implementation in the indices.

It is important to keep in mind that the review process can be quite lengthy. As an example, in the case of the MSCI Greece Index, MSCI made a public announcement on March 28, 2000 that it was formally considering the MSCI Greece Index for inclusion in its Developed Markets Equity Index Series. The intensive internal review process with respect to the MSCI Greece Index's status began substantially before the public announcement of the formal review. Please note also that Greece had met the World Bank threshold for a high-income country as early as 1991, but MSCI determined that certain other development factors were not either present or sustainable at that time to merit consideration for Developed Market status in the indices. The March 2000 formal announcement that Greece's status was under review was followed by a consultation period and an announcement on July 31, 2000 that Greece would be included in the Developed Markets Equity Index Series effective as of the close of May 31, 2001.

At this time, there is no formal review or consultation by MSCI regarding a possible change in the status of any MSCI country index, including the MSCI Korea Index, which has been the subject of recent inquiry. As described above, any formal review process would be preceded by a public announcement.

All dates are 'as of date' (and not 'as of the close of')

COUNTRY	BASE DATE	INCLUSION DATE	CLASSIFICATION	NOTES
FINLAND	1-Jan-1988	1-Jan-88	Developed Mkt (DM)	
GREECE	1-Jan-1988	1-Jun-01	DM	Reclassified as a DM as of 01-Jun-2001 and simultaneously removed from EM indices
IRELAND	1-Jan-1988	3-May-93	DM	Included in the AC world index since 01-Jan-1988
LUXEMBOURG	1-Jan-1988	In AC World index from 01-Jan-88 to 30-Sep-96 In EU index from 01-Jan-88 to 28-Feb-02	DM	Discontinued as of Mar-2002
NEW ZEALAND	1-Jan-1988	1-Jan-88	DM	
PORTUGAL	1-Jan-1988	1-Dec-97	DM	Reclassified as a DM as of 01-Dec-1997 and simultaneously removed from EM indices
STH AFRICAN GOLD MINES	1-Jan-1970	From 02-Dec-74 to 01-Mar-95	DM	Discontinued in Mar 1995
ARGENTINA	1-Jan-1988	1-Jan-88	Emerging Mkt (EM)	ADR version of Argentina Index available from 30-Nov-2001
BRAZIL	1-Jan-1988	1-Jan-88	EM	
CHILE	1-Jan-1988	1-Jan-88	EM	
CHINA FREE	1-Jan-1993	3-Sep-96	EM	
COLOMBIA	1-Jan-1993	2-Feb-94	EM	

All dates are 'as of date' (and not 'as of the close of')

COUNTRY	BASE DATE	INCLUSION DATE	CLASSIFICATION	NOTES
CZECH REPUBLIC	1-Jan-1995	3-Sep-96	EM	Launched June 1996 as a EM index - aggregated into EM regional indices as of 03-Sep-1996
EGYPT	1-Jan-1995	1-Jun-01	EM	Launched as a standalone EM index - aggregated into EM regional indices as of 01-Jun-2001
GREECE	1-Jan-1988	from 01-Jan-88 to 31-May-01	EM	Reclassified as a DM as of 01-Jun-2001 and simultaneously removed from EM indices
HUNGARY	1-Jan-1995	3-Sep-96	EM	Launched June 1996 as a EM index - aggregated into EM regional indices as of 03-Sep-1996
INDIA	1-Jan-1993	2-Feb-94	EM	
INDONESIA	1-Jan-1988	1-Sep-89	EM	

All dates are 'as of date' (and not 'as of the close of')

COUNTRY	BASE DATE	INCLUSION DATE	CLASSIFICATION	NOTES	
ISRAEL	1-Jan-1993	2-Mar-95	EM	Initially a standalone index with no market classification. Classified as a EM index 1-Oct-1994, aggregated into the EM regional indices as of 02-Mar-95	
JORDAN	1-Jan-1988	1-Jan-88	EM		
KOREA	1-Jan-1988	01-Jan-88 (see comments)	EM	Initially in Free Indices at 20% (from 7-Jan-92 to 01-Sep-96) then at 50% (from 02-Sep-96 to 31-Aug-98) and finally at 100% since 01-Sep-98)	*

All dates are 'as of date' (and not 'as of the close of')

COUNTRY	BASE DATE	INCLUSION DATE	CLASSIFICATION	NOTES
MALAYSIA	1-Jan-1988	1-Jan-88	EM	From 03-May 1993 to 30-Sep-98 - Malaysia also in DM Indices. Prior to this aggregated into DM regional indices from 01-Dec-72 as part of Singapore/Malaysia Index. After 30-Sep-98 only included in EM.
MEXICO	1-Jan-1988	1-Jan-88	EM	Initially in DM from 05-Nov-1981 to 31-Dec-87
MOROCCO	1-Jan-1995	1-Jun-01	EM	Launched as a standalone EM index - aggregated into EM regional indices 01-Jun-2001
PAKISTAN	1-Jan-1993	2-Feb-94	EM	Launched as EM standalone in 1-Oct-1994, aggregated into EM regional indices 02-Mar-95
PERU	1-Jan-1993	2-Feb-94	EM	
PHILIPPINES	1-Jan-1988	1-Jan-88	EM	
POLAND	1-Jan-1993	2-Mar-95	EM	
PORTUGAL	1-Jan-1988	from 01-Jan-88 to 30-Nov-97	EM	DM since 01-dec-97

All dates are 'as of date' (and not 'as of the close of')

COUNTRY	BASE DATE	INCLUSION DATE	CLASSIFICATION	NOTES	
RUSSIA	1-Jan-1995	1-Dec-97	EM	Launched as standalone index - Entered EM aggregates 01-Dec-1997	
SOUTH AFRICA	1-Jan-1993	2-Mar-95	EM	Launched as EM standalone in Oct-1994, aggregated into EM regional indices 02-Mar-1995	
SRI LANKA	1-Jan-1993	From 02-Feb-94 to 31-May-01	EM	Standalone index from 31-May-01 when removed from EM aggregates	
TAIWAN	1-Jan-1988	1-Jan-88	EM	Initially only in non-free indices. Joined Free Index series on 03-Sep-96 at 50% then at 65% on 01-Jun-2000 and then at 80% since 01-Dec-2000.	*
THAILAND	1-Jan-1988	1-Jan-88	EM		
TURKEY	1-Jan-1988	1-Jan-88	EM		
VENEZUELA	1-Jan-1993	2-Feb-94	EM		

from 30-Nov-1998
to 31-May-2000 -
Removed from
EM free - due to
crisis in Malaysia

